

**Experiment Number:** 60311 - 05  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/F344/N Tac

**E05: CLINICAL OBSERVATIONS SUMMARY**

Cobalt  
**CAS Number:** 7440-48-4

**Date Report Requested:** 01/18/2012  
**Time Report Requested:** 14:47:13  
**First Dose M/F:** 05/08/06 / 05/08/06  
**Lab:** BNW

**NTP Study Number:** C60311  
**Lock Date:** 12/03/2008  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.6.0.0\_007  
**PWG Approval Date:** NONE

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Date Report Requested: 01/18/2012  
 Time Report Requested: 14:47:13  
 First Dose M/F: 05/08/06 / 05/08/06  
 Lab: BNW

SEX: MALE		WEEK: 105							
OBSERVATION	Control		1.25 mg/m3		2.5 mg/m3		5.0 mg/m3		
	CURRENT*	TOTAL+	CURRENT	TOTAL	CURRENT	TOTAL	CURRENT	TOTAL	
Abnormal Breathing	0 / 0	1 / 50 DAY 30	0 / 0	0 / 50	0 / 0	4 / 50 DAY 618	0 / 0	11 / 50 DAY 478	
Diarrhea	0 / 0	1 / 50 DAY 702	0 / 0	0 / 50	0 / 0	1 / 50 DAY 702	0 / 0	0 / 50	
Eye Abnormality	0 / 0	0 / 50	0 / 0	2 / 50 DAY 646	0 / 0	2 / 50 DAY 58	0 / 0	2 / 50 DAY 58	
Head Tilt	0 / 0	0 / 50	0 / 0	2 / 50 DAY 562	0 / 0	1 / 50 DAY 618	0 / 0	0 / 50	
Lethargic	0 / 0	1 / 50 DAY 646	0 / 0	1 / 50 DAY 618	0 / 0	3 / 50 DAY 618	0 / 0	1 / 50 DAY 478	
Mass Appendage	0 / 0	0 / 50	0 / 0	2 / 50 DAY 562	0 / 0	4 / 50 DAY 618	0 / 0	1 / 50 DAY 646	
Mass Head	0 / 0	4 / 50 DAY 254	0 / 0	5 / 50 DAY 338	0 / 0	0 / 50	0 / 0	4 / 50 DAY 534	
Mass Torso/Dorsal	0 / 0	4 / 50 DAY 450	0 / 0	4 / 50 DAY 394	0 / 0	4 / 50 DAY 562	0 / 0	2 / 50 DAY 478	

\* ANIMALS WITH OBSERVATION IN CURRENT PERIOD / TOTAL ANIMALS OBSERVED IN CURRENT PERIOD (WITHIN 30 DAYS OF RUN DATE)  
 + ROW 1 = CUMULATIVE NO. OF ANIMALS WITH OBSERVATION / TOTAL ANIMALS STARTED ON STUDY  
 ROW 2 = DAY OF ONSET

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OBSERVATION	Control		1.25 mg/m3		2.5 mg/m3		5.0 mg/m3		
	CURRENT*	TOTAL+	CURRENT	TOTAL	CURRENT	TOTAL	CURRENT	TOTAL	
<b>Mass</b> Torso/Lateral	0 / 0	2 / 50 DAY 674	0 / 0	1 / 50 DAY 450	0 / 0	4 / 50 DAY 366	0 / 0	1 / 50 DAY 590	
<b>Mass</b> Torso/Ventral	0 / 0	4 / 50 DAY 562	0 / 0	5 / 50 DAY 450	0 / 0	4 / 50 DAY 450	0 / 0	4 / 50 DAY 450	
<b>Nasal/Eye Discharge</b>	0 / 0	1 / 50 DAY 30	0 / 0	1 / 50 DAY 702	0 / 0	0/50	0 / 0	1 / 50 DAY 58	
<b>Thin</b>	0 / 0	22 / 50 DAY 366	0 / 0	26 / 50 DAY 534	0 / 0	25 / 50 DAY 450	0 / 0	46 / 50 DAY 226	
<b>Ulcer/Abscess</b> Appendage	0 / 0	0/50	0 / 0	0/50	0 / 0	1 / 50 DAY 688	0 / 0	0/50	
<b>Ulcer/Abscess</b> Head	0 / 0	1 / 50 DAY 366	0 / 0	0/50	0 / 0	0/50	0 / 0	0/50	
<b>Ulcer/Abscess</b> Torso/Lateral	0 / 0	0/50	0 / 0	1 / 50 DAY 142	0 / 0	0/50	0 / 0	0/50	
<b>Ulcer/Abscess</b> Torso/Ventral	0 / 0	10 / 50 DAY 198	0 / 0	11 / 50 DAY 310	0 / 0	12 / 50 DAY 282	0 / 0	6 / 50 DAY 310	

\*\*\*END OF MALE DATA\*\*\*

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OBSERVATION	Control		1.25 mg/m3		2.5 mg/m3		5.0 mg/m3		
	CURRENT*	TOTAL+	CURRENT	TOTAL	CURRENT	TOTAL	CURRENT	TOTAL	
Abnormal Breathing	0 / 0	0/50	0 / 0	0/50	0 / 0	6 / 50 DAY 114	0 / 0	4 / 50 DAY 506	
Clonic Seizures	0 / 0	0/50	0 / 0	1 / 50 DAY 422	0 / 0	1 / 50 DAY 590	0 / 0	0/50	
Eye Abnormality	0 / 0	3 / 50 DAY 30	0 / 0	4 / 50 DAY 254	0 / 0	3 / 50 DAY 310	0 / 0	0/50	
Lethargic	0 / 0	1 / 50 DAY 618	0 / 0	2 / 50 DAY 618	0 / 0	4 / 50 DAY 282	0 / 0	1 / 50 DAY 506	
Mass Appendage	0 / 0	0/50	0 / 0	1 / 50 DAY 394	0 / 0	0/50	0 / 0	0/50	
Mass Head	0 / 0	0/50	0 / 0	1 / 50 DAY 450	0 / 0	1 / 50 DAY 366	0 / 0	0/50	
Mass Torso/Dorsal	0 / 0	0/50	0 / 0	1 / 50 DAY 534	0 / 0	0/50	0 / 0	0/50	
Mass Torso/Lateral	0 / 0	2 / 50 DAY 590	0 / 0	2 / 50 DAY 422	0 / 0	3 / 50 DAY 450	0 / 0	3 / 50 DAY 282	

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OBSERVATION	Control		1.25 mg/m3		2.5 mg/m3		5.0 mg/m3		
	CURRENT*	TOTAL+	CURRENT	TOTAL	CURRENT	TOTAL	CURRENT	TOTAL	
<b>Mass</b> Torso/Ventral	0 / 0	15 / 50 DAY 310	0 / 0	23 / 50 DAY 478	0 / 0	12 / 50 DAY 450	0 / 0	9 / 50 DAY 310	
<b>Nasal/Eye Discharge</b>	0 / 0	4 / 50 DAY 198	0 / 0	6 / 50 DAY 198	0 / 0	4 / 50 DAY 226	0 / 0	2 / 50 DAY 254	
<b>Thin</b>	0 / 0	10 / 50 DAY 506	0 / 0	23 / 50 DAY 394	0 / 0	26 / 50 DAY 114	0 / 0	34 / 50 DAY 450	
<b>Ulcer/Abscess</b> Torso/Dorsal	0 / 0	0/50	0 / 0	0/50	0 / 0	0/50	0 / 0	3 / 50 DAY 282	
<b>Ulcer/Abscess</b> Torso/Lateral	0 / 0	0/50	0 / 0	0/50	0 / 0	0/50	0 / 0	1 / 50 DAY 646	
<b>Ulcer/Abscess</b> Torso/Ventral	0 / 0	1 / 50 DAY 646	0 / 0	2 / 50 DAY 534	0 / 0	1 / 50 DAY 562	0 / 0	0/50	

\*\*\*END OF REPORT\*\*\*

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